

**EQUATION 13-2**  
**Proposed UA<sub>p</sub>**

$$UA_p = U_{ra}A_{ra} + U_{or}A_{or} + U_{og}A_{og} + U_wA_w + U_dA_d + U_{vg}A_{vg} + U_fA_f + F_sP_s + U_{bgw}A_{bgw}$$

Where:

UA<sub>p</sub> = The combined proposed specific heat transfer of the gross exterior wall, floor and roof/ceiling assembly area.

U<sub>ra</sub> = The thermal transmittance of the roof over attic area.

A<sub>ra</sub> = Opaque roof over attic area.

U<sub>or</sub> = The thermal transmittance of the other roof area.

A<sub>or</sub> = Opaque other roof area.

U<sub>og</sub> = The thermal transmittance for the overhead glazing.

A<sub>og</sub> = Overhead glazing area.

U<sub>w</sub> = The thermal transmittance of the opaque wall area.

A<sub>w</sub> = Opaque above grade wall area (not including opaque doors).

U<sub>vg</sub> = The thermal transmittance of the vertical glazing area.

A<sub>vg</sub> = Vertical glazing area.

U<sub>d</sub> = The thermal transmittance value of the opaque door area.

A<sub>d</sub> = Opaque door area.

U<sub>f</sub> = The thermal transmittance of the floor over unconditioned space area.

A<sub>f</sub> = Floor area over unconditioned space.

F<sub>s</sub> = Slab-on-grade or radiant floor component F-factor.

P<sub>s</sub> = Lineal feet of slab-on-grade or radiant floor perimeter.

U<sub>bgw</sub> = The thermal transmittance value of the below grade wall area.

A<sub>bgw</sub> = Below grade wall area as defined in Tables 13-1 or 13-2.

**NOTE:** Where more than one type of wall, window, roof/ceiling, door and skylight is used, the U and A terms for those items shall be expanded into sub-elements as:

$$U_{w1}A_{w1} + U_{w2}A_{w2} + U_{w3}A_{w3} + \dots \text{etc.}$$